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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/812,456

03/30/2004

Jonathan J. Barrow

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3157

45456

7590

12/01/2006

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EXAMINER

SONG, JASMINE

ART UNIT

PAPER NUMBER

2188

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/812,456

Applicant(s)

BARROW, JONATHAN J.

Examiner

Jasmine Song

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 6, 9 and 10 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 7, 8 and 11-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/30/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Detailed Action

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

2. The drawings filed on 03/30/2004 have been approved by the Examiner.

Oath/Declaration

3. The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in 37 C.F.R. 1.63.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 1-2 are rejected under 35 U.S.C. 102(e) as being anticipated by Hansson et al., US 2005/0124390 A1.

Regarding claim 1, Hansson teaches a system, comprising:

a plurality of time elements (it is taught as a plurality of mobile stations 20 including current GPS referenced time; section 0025, lines 4-5);

a time manager (it is taught as a networked GPS time server 135) connected to the time elements;

wherein the time manager provides an accurate initial time information seed to the connected time elements (it is taught as the networked GPS time server 135 transmits a single GPS time assistance message to the mobile station 20 including GPS referenced time information, section 0025);

wherein the time elements derive, from the initial time information seed fed thereto and previously calculated delay information from the time manager to the time elements, a global machine time, such global machine time being a function of the calculated time delay from the time manager and the initial time information seed (it is taught as GPS referenced time at a mobile station derived from a single message including GPS referenced time information and delay information, claim 14).

Regarding claim 2, Hansson teaches the time manager is connected to a stratum-2 clock source (it is taught as networked GPs time server 135).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5-6 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson et al., US 2005/0124390 A1, in view of Thibault et al., US 2003/0140192 A1.

Regarding claims 5- 6 and 9, Hansson teaches a data storage system for transferring data between a host computer/server and a bank of disk drives through a system interface, such system interface comprising:

a plurality of time elements (it is taught as a plurality of mobile stations 20 including current GPS referenced time; section 0025, lines 4-5);

a time manager (it is taught as a networked GPS time server 135) connected to the time elements;

wherein the time manager provides an accurate initial time information seed to the connected time elements (it is taught as the networked GPS time server 135 transmits a single GPS time assistance message to the mobile station 20 including GPS referenced time information, section 0025);

wherein the time elements determine, from the time information fed thereto, global machine time for the one of the directors having such time element and wherein each one of the time elements determines the global machine time as a function of time delay from the time manager to such one of the time elements (it is taught as GPS

referenced time at a mobile station derived from a single message including GPS referenced time information and delay information, claim 14). Hansson further teaches a time manager serially connected to a first one of the serially connected time elements (it is taught as the networked GPS time server connected to each mobile station and processes the requests in the time T1, T2 and T3);

Hansson does not teach a system interface having a plurality of directors, one portion thereof being coupled to the host computer/server and another portion thereof being coupled to the bank of disk drives, such directors controlling a flow of data between the host computer/server and the bank of disk drives, each one of the directors having a time element.

However, Thibault et al teach a system interface having a plurality of directors, one portion thereof being coupled to the host computer/server and another portion thereof being coupled to the bank of disk drives, such directors controlling a flow of data between the host computer/server and the bank of disk drives (Fig.2), each one of the directors having a time element (each front-end director requests the transfer of data after some period of time when the back-end director determines that the data can be removed from cache memory and stored in the bank of disk drives, section 0045, lines 5-9).

It would have been obvious to the ordinary skill in the art at the time the invention was made to utilize the teachings of Thibault into Hansson's system such as employ a system interface as shown in Fig.2 because the cache memory in the data transfer section is not burdened with the task of transferring the director messaging with such an

arrangement, thereby increasing the operation bandwidth of the system interface (section 0038 of Thibault).

Regarding claim 10, Hansson teaches the time information is passed sequentially to the serially connected time elements (it is taught as the networked GPS time server connected to each mobile station and processes the requests in the time T1, T2 and T3).

Allowable Subject Matter

8. Claims 3-4,7-8 and 11-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The limitation cannot find in the prior art include each of the time elements determines the global machine time as a calculation of initial time provided by the time manager and the previously measured delay of information transport and the time taken by such time element to make the determination as claimed in the claims 3,7 and 11 in combination with other subject matters set forth in the claimed invention.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pikula et al

US 6,873,573 B2

10. When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. 1.111 (c).

11. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasmine Song whose telephone number is 571-272-4213. The examiner can normally be reached on 7:30-5:30 (first Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on 571-272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jasmine Song

Patent Examiner

November 15, 2006